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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,567	08/10/2001	Noboru Yamaguchi	212636US2SRD	3746
22850	7590	10/19/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			LEE, RICHARD J	
			ART UNIT	PAPER NUMBER
			2613	
DATE MAILED: 10/19/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/925,567

Applicant(s)

YAMAGUCHI ET AL.

Examiner

Richard Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For examples:

- (1) claim 1, line 14, "the feature amount" shows no clear antecedent basis;
- (2) claim 8, lines 9-10, "the statistical feature amount" shows no clear antecedent basis;
- (3) claim 14, line 13, "the statistical feature amount" shows no clear antecedent basis; and
- (4) claim 15, line 10, "the feature amount" shows no clear antecedent basis.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1, 8, 14, and 15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5, 6, and 13 of copending Application No. 09/769,309. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1 and 15 are broader in scope than claims 1, 5, 6, and 13 of '309. Though claim 8 recites a video encoding method in the preamble with method steps in the body of the claim, and claim 14 recites a computer program stored on a computer readable medium in the preamble with instruction means in the body of the claim, the

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method steps and instruction means are drawn to the same subject matter of application claim 1. Therefore application claims 8 and 14 are also deemed not to be patentably distinct from claims 1, 5, 6, and 13 of '309.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 8 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dieterich (6,100,940) in view of Legall et al (5,872,598).

Dieterich discloses an apparatus and method for using side information to improve a coding system as shown in Figures 1 and 6, and substantially the same video encoding apparatus and method for encoding a video image, and computer program stored on a computer readable medium as claimed in claims 1, 8, and 14-16, comprising substantially the same a first feature amount computing device (i.e., 110 of Figure 1 and see column 1, lines 34-45, column 1, lines 65 to column 2, line 5, column 3, lines 18-31, column 5, lines 35-47, column 12, lines 32-40, column 13, lines 32-49) configured to compute a number of motion vectors and at least some of a number of motion vectors, distribution, norm size, residual error after motion compensation, and variance of luminance and chrominance for each of time-continuous frames of the video image by analyzing an input video signal representing the video image; a scene dividing device (see column 1, lines 34-45, column 1, lines 65 to column 2, line 5, column 3, lines 18-31, column

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5, lines 35-47, column 9, lines 56-66) configured to divide the video image into a plurality of scenes continuous in time in accordance with at least some of a number of motion vectors, distribution, norm size, residual error after motion compensation, and variance of luminance and chrominance, each of the scenes including one or more of the time-continuous frames; an encoding parameter generator (i.e., 182 of Figure 1, see column 6, lines 32-48) configured to generate an encoding parameter including at least an optimum frame rate and quantization step size for each of the scenes; an encoder (i.e., 180 of Figure 1 and see column 4) configured to encode the input video signal in accordance with the encoding parameter generated for each of the scenes by the encoding parameter generator; and wherein the vectors are distributed in one of (a) a type that almost no motion vector exists in a frame, (b) a type that motion vectors with identical directions and sizes are distributed over the entire frame, (c) a type that a motion vector appears at a specific portion in a frame, (d) a type that motion vectors are distributed in a radiation manner in a frame, and (e) a type that a large number of motion vectors are present in a frame, and their directions are not uniform (see column 5, lines 35-47, column 7, lines 10-24, column 12, lines 32-40).

Dieterich does not particularly disclose, though, a second feature amount computing device configured to compute an average feature amount for each of the scenes using the feature amount obtained by the first feature amount computing device; the encoding parameter generator configured to generate an encoding parameter including at least an optimum frame rate and quantization step size for each of the scenes using the average feature amount as claimed in claims 1, 8, 14, and 15. However, Legall et al discloses a scene change detection using quantization scale factor rate control, and teaches the conventional computations of the

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averaging of frames of a scene so as to detect scene changes (see column 11, lines 37-62). The averaging of the frames within Legall et al provides substantially the same if not the same average feature amount for each of the scenes within a second feature amount computing device as claimed. And since Dieterich is interested in providing motion information from the first feature amount computing device 110, the activities within frames as provided by Legall et al is considered the motion information that may be provided within Dieterich. Therefore, it would have been obvious to one of ordinary skill in the art, having the Dieterich and Legall et al references in front of him/her and the general knowledge of video encodings with side information made available to the encoder, would have had no difficulty in providing the second feature amount computing device for computing an average feature amount for each of the scenes as taught by Legall et al within the system of Dieterich and so that modified second feature amount computing device within Dieterich computes an average feature amount for each of the scenes using the feature amount obtained by the first feature amount computing device and so that the encoding parameter generator of Dieterich generates the encoding parameter including at least an optimum frame rate and quantization step size for each of the scenes using the average feature amount for the same well known providing of side information to an encoder in advance for control of the frame rate and quantization step sizes purposes as claimed.

6. Claims 2, 3, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dieterich and Legall et al as applied to claims 1, 8, and 14-16 in the above paragraph (5), and further in view of Maeda et al of record (6,546,052).

The combination of Dieterich and Legall does not particularly disclose, though, a scene selector to select the scenes in accordance with operation information obtained by editing

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performed by an user and to provide the selected scenes to the encoding parameter generator, and a scene content providing device configured to provide feature of each of the scenes to the user as claimed in claims 2, 3, 9, and 10.

However, Maeda et al discloses an image processing apparatus and method as shown in Figures 1 and 5, and teaches the particular use of a scene content providing device configured to provide feature of each of the scenes to the user (see Figures 1 and 5, and columns 7-9). It is noted that the selected scenes of Maeda et al are performed within object extractor 103 in accordance with an operation information obtained by an automatic process (see column 7) to be provided to encoding parameter generator (128, 131 of Figure 5), and not in accordance with operation information obtained by editing performed by an user as claimed. It is however not invention to make something manual from an automatic process, and vice versa (see *In re Venner*, 120 USPQ 192 (CCPA 1958)). Therefore, it would have been obvious to one of ordinary skill in the art, having the Maeda et al reference in front of him/her, would have had no difficulty in providing the scene content providing device configured to provide feature of each of the scenes to the user as taught by Maeda et al for the system of Dieterich and Legall et al as well as replacing the automatic scene selection of Maeda et al with a manual process involving the selection of scenes in accordance with operation information obtained by editing performed by an user and to provide the selected scenes to the encoding parameter generator of Dieterich for the same well known user manipulation purposes as claimed.

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7. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dieterich, Legall et al, and Maeda et al as applied to claims 1-3, 8-10, and 14-16 in the above paragraphs (5) and (6), and further in view of Sekiguchi et al of record (6,611,628).

The combination of Dieterich, Legall et al, and Maeda et al discloses substantially the same video encoding apparatus and method for encoding a video image, and computer program stored on a computer readable medium as above, but does not particularly disclose wherein the scene content providing device provides a key-frame of each scene or a thumb nail thereof to the user as claimed in claims 4 and 11. The particular use of key frames of scenes and thumb nails are however old and well recognized in the art, as exemplified by Sekiguchi et al (see Figure 8 and column 7, lines 36+). Therefore, it would have been obvious to one of ordinary skill in the art, having the Dieterich, Legall et al, Maeda et al, and Sekiguchi et al references in front of him/her and the general knowledge of key frame and thumb nail processings, would have had no difficulty in providing the key frame of scenes as taught by Sekiguchi et al for the video encoder of Dieterich for the same well known scene identification of objects of interest purposes as claimed.

8. Claims 5, 6, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dieterich, Legall et al, Maeda et al, and Sekiguchi et al as applied to claims 1-4, 8-11, and 14-16 in the above paragraphs (5) to (7), and further in view of Nagasaka et al of record (6,400,890).

The combination of Dieterich, Legall et al, Maeda et al, and Sekiguchi et al discloses substantially the same video encoding apparatus and method for encoding a video image, and computer program stored on a computer readable medium as above, but does not wherein the scene content providing device provides a symbol indicating the average feature amount or

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feature obtained for each scene by the second feature amount computing device to the user as claimed in claims 5, 6, 12, and 13. However, such technical features are well known and made obvious by Nagasaka et al (see 802 of Figure 17 and column 14, lines 37-65). Therefore, taking the combined teaching of Dieterich, Legall et al, Maeda et al, Sekiguchi et al, and Nagasaka et al as a whole, it would have been obvious to modify the video encoder of Dieterich to include the symbol indicating the feature obtained for each scene as taught in Nagasaka et al. Doing so would provide the user an added function in the display, and thereby including a quick identification of a scene of interest.

9. Applicants' arguments from the amendment filed July 15, 2005 have been noted and considered, but are deemed moot in view of the above new grounds of rejections.

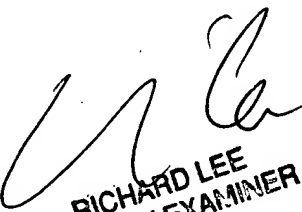
10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (571) 272-7333. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.


RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

10/7/05

